

Patent
TS-7594(US)
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Amendments to the Claims:

Please make the following amendments to the claims:

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1. (Currently amended) A water-in-fuel emulsion composition comprising a Fischer-Tropsch derived fuel and water, wherein said water-in-fuel emulsion composition havehas an ignition delay of equal or less than the equivalent cetane number of 40.
2. (Original) The composition of claim 1 which contains no ignition improving additive.
3. (Original) The composition of claim 1 wherein the water-in-fuel emulsion composition comprises an emulsifier.
4. (Currently amended) The composition of claim 1 wherein the water-in-fuel emulsion composition havehas an ignition delay of equal or less than the equivalent cetane number of about 44.
5. (Currently amended) The composition of claim 4 wherein the water-in-fuel emulsion composition hashave an ignition delay of equal or less than the equivalent cetane number of about 50.
6. (Currently amended) A water-in-fuel emulsion composition comprising a Fischer-Tropsch derived fuel and water, wherein said water-in-fuel emulsion composition havehas an ignition delay of about 3 ~~[(ϵ)]degrees of crank angle[(δ)] or less measured using an AVL/LEF 5312 engine wherein the operating conditions comprise a torque set point of 130 Nm, a speed set point of 1200 rpm, a coolant temperature set point of 80°C, an air intake temperature of 35°C, an air intake pressure of 140 kPa, an exhaust pressure of 120 kPa, and injection timing set at 1° of crank angle before top dead center (BTCD) under operating condition as described in Tables 2 and 3.~~
7. (Currently amended) The composition of claim 6 wherein the water-in-fuel emulsion composition havehas an ignition delay of about 3.1 ~~[(ϵ)]degrees of crank angle[(δ)] or less ~~measured using an AVL/LEF 5312 engine under operating condition as described in Tables 2 and 3.~~~~
8. (Original) The composition of claim 6 which contains no ignition improving additive.

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9. (Original) The composition of claim 7 which contains no ignition improving additive.
10. (Original) The composition of claim 6 wherein the water-in-fuel emulsion composition comprises an emulsifier.
11. (Original) The composition of claim 7 wherein the water-in-fuel emulsion composition comprises an emulsifier.
12. (Original) A method of reducing ignition delay in a compression ignition engine comprising operating the compression ignition engine in the presence of a water-in-fuel emulsion composition, said composition comprising a Fischer-Tropsch produced fuel and water.
13. (Original) A method of reducing the emission of NO_x from a compression ignition engine comprising operating the compression ignition engine in the presence of a water-in-fuel emulsion composition, said composition comprising a Fischer-Tropsch produced fuel and water.
14. (Original) A method of reducing the emission of black smoke and/or particulate matter from a compression ignition engine comprising operating the compression ignition engine in the presence of a water-in-fuel emulsion composition, said composition comprising a Fischer-Tropsch derived fuel and water.
15. (Original) The method of claim 12 wherein the water-in-fuel emulsion composition contains no ignition-improving additive.
16. (Original) The method of claim 13 wherein the water-in-fuel emulsion composition contains no ignition-improving additive.
17. (Original) The method of claim 14 wherein the water-in-fuel emulsion composition contains no ignition-improving additive.
18. (Currently amended) A method of reducing emissions of NO_x and/or black smoke and/or particulate matter in a compression ignition engine, as compared to that when using a conventional fuel having a specification in accordance with ASTM D975D973-03, but without reducing the ignition quality, which comprises replacing said

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fuel in said engine by a water-in-fuel emulsion composition which comprises a Fischer-Tropsch derived fuel and water.

19. (Original) A method of operating a compression ignition engine comprising including in said engine a water-in-fuel emulsion composition which comprises a Fischer-Tropsch derived fuel and water.
20. (Currently amended) The method of claim 19 wherein the water-in-fuel emulsion composition ~~have~~has an ignition delay of about 3 or less measured using an AVL/LEF 5312 engine ~~under operating condition as described in Tables 2 and 3~~ wherein the operating conditions comprise a torque set point of 130 Nm, a speed set point of 1200 rpm, a coolant temperature set point of 80°C, an air intake temperature of 35°C, an air intake pressure of 140 kPa, an exhaust pressure of 120 kPa, and injection timing set at 1° of crank angle BTCD.
21. (Currently amended) The method of claim 19 wherein the water-in-fuel emulsion composition ~~have~~has an ignition delay of equal or less than the equivalent cetane number of 40.
22. (Currently amended) The method of claim 20 wherein the water-in-fuel emulsion composition ~~have~~has an ignition delay of about 3.1 or less ~~measured using an AVL/LEF 5312 engine under operating condition as described in Tables 2 and 3.~~
23. (Currently amended) The method of claim 21 wherein the water-in-fuel emulsion composition ~~have~~has an ignition delay of equal or less than the equivalent cetane number of about 44.
24. (Original) The method of claim 20 which contains no ignition improving additive.
25. (Original) The method of claim 21 which contains no ignition improving additive.
26. (Original) The method of claim 22 which contains no ignition improving additive.
27. (Original) The method of claim 23 which contains no ignition improving additive.

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28. (Original) A process for the preparation of a water-in-fuel emulsion composition which process comprises admixing a Fischer-Tropsch derived fuel with water.